

**THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA**

DOCKET NO. 2021-324-WS

IN RE: Application of Kiawah Island Utility, Incorporated to File Proposed Changes in Rates, Charges, Classifications and/or Regulations for Water and Sewer Service.))))))	REBUTTAL TESTIMONY OF CHARLES LOY
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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Charles Loy. My principal place of business is 919 Congress Avenue, Suite 1110, Austin, Texas 78701.

Q. ARE YOU THE SAME CHARLES LOY WHO PREVIOUSLY PROVIDED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL IN THIS PROCEEDING?

A. The purpose of my rebuttal testimony is to address the Office of Regulatory Staff (“ORS”) recommendation regarding Kiawah Island Utility, Inc.’s (“KIU” or “Company”) Class Cost of Service Study (CCOSS) and proposed rate design.

II. ORS COST OF SERVICE ADJUSTMENTS

Q. HAVE YOU REVIEWED THE PROPOSED CORRECTIONS AND ADJUSTMENTS THAT ORS WITNESS WATKINS MADE TO KIU’S WATER AND WASTEWATER CCOSS?

1 A. Yes. Many adjustments made by ORS were determined through interrogatories or are
2 differences in approaches that result in relatively immaterial changes to the overall
3 assignment of costs. Other than the issues discussed below, KIU does not have concerns
4 with the other adjustments related to CCOSS made by ORS.

5 **Q. PLEASE SUMMARIZE ORS'S PROPOSED ADJUSTMENT TO ACCOUNT 331.4.**

6 A. ORS's proposed adjustment to Account 331.4 purports to remove the portion of plant
7 disallowed by the Commission.

8 **Q. DO YOU AGREE THIS ADJUSTMENT IS NECESSARY?**

9 A. No. The portion of plant disallowed by the Commission was already removed by KIU in
10 its application and CCOSS; ORS's proposed adjustment would result in the disallowed
11 plant being removed twice. Specifically, in making his proposed adjustment, ORS Witness
12 Watkins relies on ORS discovery request 10-16, which requests a reconciliation of KIU's
13 test year balance sheet and "CCOSS Per Books." The "per books" amount includes the
14 disallowed plant; however, the "as adjusted" amount in both the CCOSS and KIU's
15 application removes the disallowed plant. ORS's proposed adjustment therefore results in
16 the disallowed plant being removed twice and should not be accepted.

17 **Q. DO YOU AGREE WITH MR. WATKINS' STATEMENT THAT THE**
18 **ALLOCATION OF O&M AND DEPRECIATION EXPENSES BASED ON**
19 **CORRESPONDING PLANT AMOUNTS REPRESENT AN IMPLICIT**
20 **ACCEPTANCE OF THE USE OF RATE OF RETURN METHODOLOGY?**

21 A. No. As Mr. Watkins indicates in his Direct Testimony, virtually all utility CCOSS utilize
22 plant as the basis of allocating the majority of O&M and depreciation expenses¹, regardless

¹ Watkins Direct, Page 11 Lines 8 through 10

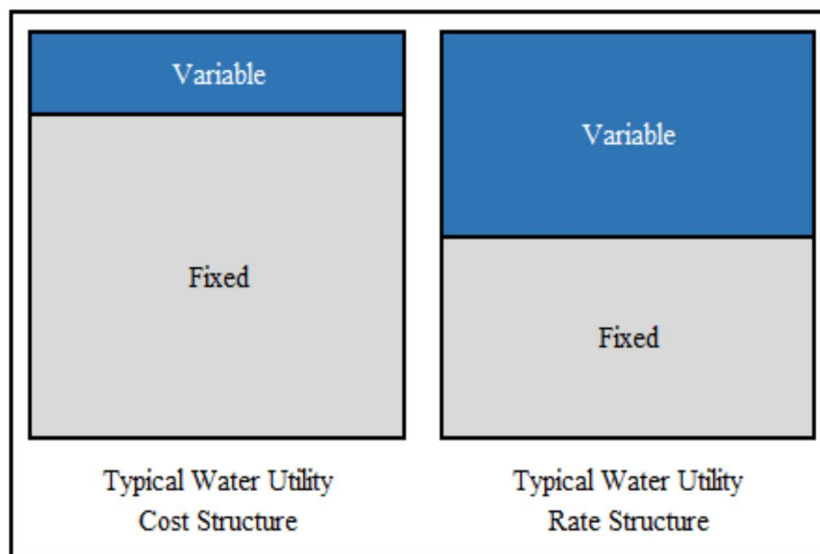
of what revenue requirement methodology is being used. These costs ultimately arise, or are incurred, in service of plant assets, so plant or rate base are the most appropriate bases of cost-causation allocations.

III. RATE DESIGN

Q. PLEASE EXPLAIN HOW MAINTAINING A SUFFICIENT LEVEL OF FIXED REVENUE GIVES THE COMPANY A REASONABLE OPPORTUNITY TO RECOVER THE COST OF SERVICE.

A. Table 1 below illustrates the challenge that faces a utility when designing rates. When the cost of purchased water is removed from the revenue requirement, the large portion of costs that remain are fixed in nature and will be incurred regardless of usage. These costs include debt service, payroll and payroll-related taxes and benefits, capital costs, depreciation, and taxes. Variable costs, those that are incurred as water is consumed, typically make up a negligible amount in proportion to the total revenue requirement.

Table 1 - Comparison of Typical Water Utility Cost and Rate Structure



1 **Q. PLEASE EXPLAIN HOW THE LEVEL OF FIXED AND VARIABLE COSTS**
2 **IMPACTS RATE DESIGN FOR WATER UTILITIES.**

3 A. Sound rate design reflects cost-causation principles under which the customer classes that
4 are the principal cause of costs, including capital investment, pay the bulk of such costs.
5 This is true of all customers on the KIU system and who benefit from the system's
6 availability whether they use a small or large amount of water in a month. It is for this
7 reason that sound rate design uses a fixed-variable rate structure where a reasonable portion
8 of fixed costs are covered in the monthly fixed charge.

9 **Q. WHAT EFFECTS ON THE UTILITY AND ITS CUSTOMERS RESULT FROM**
10 **THIS APPROACH TO RATE DESIGN?**

11 A. Base revenues from fixed charges can be predicted with a high degree of certainty and are
12 important for maintaining adequate and stable cash flows to meet ongoing fixed costs.
13 Stable fixed cash flows benefit the utility and its customers. The utility gains a measure of
14 security during a year with more than average rainfall that would otherwise lead to under-
15 recovery of the revenue requirement while utility customers are insulated from the bill
16 impacts of years with lower-than-average rainfall as volumetric charges make up a smaller
17 portion of their bill. Similarly, a higher fixed ratio avoids large swings in utility bills
18 between winter and summer months. Both the utility and customers benefit from the higher
19 accuracy of revenue forecasts under fixed charges, which lowers the cost of financing and
20 allows for planning of system replacements with more certainty. If a utility has a low fixed
21 ratio or higher variable rates, it would have difficulty covering its fixed costs during periods
22 of low usage. On the other hand, if usage is significantly higher than normal, the utility
23 would experience a windfall.

1 **Q. DO ANY OTHER FACTORS MAKE KIU'S PROPOSED FIXED/VARIABLE**
2 **STRUCTURE REASONABLE?**

3 A. Yes. Conservation efforts have been widespread and are viewed favorably by most of the
4 population in the United States, thereby making it unlikely that consumption will return to
5 previous levels. This is especially true given that acceptance of conservation has gradually
6 expanded over the past forty years. As appliances and fixtures continue to become more
7 efficient it is unlikely that water consumption will return to the levels seen ten, or even
8 five, years ago. Fixed charges must be set at a level that addresses this trend to maintain
9 cost recovery and earnings. However, the base rates a water utility charges must strike a
10 reasonable balance between fixed and variable revenue recovery. The fixed revenue must
11 be reasonable to customers, while the variable revenue must be set at a level that sends
12 adequate price signal regarding variable use.

13 **Q. DO THE UNIQUE CHARACTERISTICS OF KIU JUSTIFY A CAREFUL**
14 **CONSIDERATION OF THE REVENUES RECOVERED THROUGH FIXED**
15 **RATES?**

16 A. Yes. KIU has a few characteristics that make it more susceptible to fluctuations in demand
17 than a typical utility. One characteristic is the large irrigation base, which exposes KIU to
18 risk in both wet and dry years as irrigation customers consume less water in wet years and
19 are first in line for curtailment measures when drought conditions exist. Irrigation
20 curtailments may also lead to loss of other incomes since a large portion of KIU's irrigation
21 usage is related to golf courses that would also likely be curtailed in a drought. Like all
22 water and wastewater utilities, KIU faces the same short- and long-term declines in usage

1 that have occurred within the industry that have resulted in higher recoveries through fixed
2 rates.²

3 **Q. WHAT IS KIU'S CURRENT FIXED RATIO?**

4 A. KIU currently has a combined (water and sewer) fixed ratio of about 49%.

5 **Q. DOES KIU'S PROPOSED RATE DESIGN LEAD TO A marginally HIGHER**
6 **OVERALL FIXED RATIO?**

7 A. Yes. The portion of total revenues recovered through fixed charges would increase by a
8 small amount of about .004, or a 0.7% relative increase, under the company's proposed
9 rate design. KIU's goal was to maintain the current fixed ratio.

10 **Q. DID THE ORS PROPOSE TO MAINTAIN KIU'S CURRENT FIXED RATIO?**

11 A. No. The ORS recommends not increasing the fixed rates but applying any allowed revenue
12 increase to the variable rates only. ORS's recommended rates would decrease the overall
13 fixed ratio by .015, or a relative decrease of 3.0%. The basis of ORS's argument why fixed
14 rates should not be increased is the calculated "direct customer cost" determined by Mr.
15 Watkins. The ORS "direct customer cost" study results in a \$3.73 rate for a 5/8" meter. If
16 adopted, this amount would result in a 90% reduction in KIU's fixed revenues from water.
17 However, ORS does not recommend the results of its study and ultimately proposes that
18 the current water fixed monthly basic facilities charge of \$36.65 be retained and all of the
19 allowable revenue increase be recovered solely through increases to variable rates.

20 **Q. PLEASE SUMMARIZE ORS'S SUPPORT FOR ITS RECOMMENDATIONS**
21 **REGARDING THE LEVEL OF FIXED CHARGES FOR WATER CUSTOMERS.**

² American Water Works Association (2017). *Principles of Water Rates, Fees and Charges, Manual of Water Supply Practices (M1)* (Seventh Edition), American Water Works Association, page 149.

1 A. The ORS used two studies as the basis of its recommendation, one based on the
2 methodology used by KIU to assign costs to the customer classification and the second
3 being the “direct customer cost” analysis. The ORS states that the “direct customer cost”
4 study uses the methodology “set forth in the AWWA Manual M1.”³

5 **Q. DOES THE FIRST ANALYSIS PERFORMED BY ORS FOLLOW AWWA**
6 **METHODOLOGY FOR ASSIGNING COSTS TO FIXED RATES?**

7 A. No. The costs included in ORS’s first study are those that KIU has assigned to the
8 “customer” classification. KIU used AWWA methodology for this assignment.⁴ The
9 passages cited by ORS provide guidance for the classification of customer costs to be
10 allocated to different customer classes in a cost of service study, but not for rate design
11 purposes or determining monthly fixed rates as ORS seems to imply.

12 **Q. THE SECOND METHODOLOGY USED BY ORS IS THE “DIRECT CUSTOMER**
13 **COST” ANALYSIS. DO YOU BELIEVE THIS METHODOLOGY TO BE**
14 **RELIABLE FOR RATEMAKING PURPOSES?**

15 A. No. The “direct customer cost” calculation is unreliable, not based on any recognizable
16 industry standard or methodology, and does not appear to be supported by Commission
17 precedent. Although ORS represents that the “direct customer cost” methodology is
18 supported by AWWA, I could not find any support for this methodology within the
19 AWWA Manual M1. ORS bases the AWWA’s support on its definition of customer
20 charges, ignoring the fact that the AWWA M1 indicates that the customer charges

³ Watkins Direct, Page 32, Lines 18 through 19.

⁴ While Mr. Watkins objects to the inclusion of overhead and general costs for purposes of determining the customer charge. Allocation of costs other than power, chemical, or customer related costs are properly assigned to the customer “bucket” per AWWA methodology, see American Water Works Association (2017). *Principles of Water Rates, Fees and Charges, Manual of Water Supply Practices (M1)* (Seventh Edition), American Water Works Association. Chapter III.1.

frequently “represents a relatively small component of a larger overall fixed charge.”⁵ In fact, other costs that AWWA considers permissible in fixed charges are the costs of the portion of the system “needed to meet minimum system needs, and incremental system sizing needed to meet peak-day needs and fire flow requirements”⁶ as well as “a portion of fixed costs... because the utility continues to incur fixed costs regardless of whether customers consumed water during the billing period.”⁷

Q. IS THE RECOVERY OF COSTS OTHER THAN THE “DIRECT CUSTOMER COSTS” IDENTIFIED BY ORS SUPPORTED BY OTHER ACADEMIC PUBLICATIONS?

A. Yes. Most industry sources recognize that these costs should be recovered in the minimum charge. For instance, *Water and Wastewater Finance and Pricing*, authored by George A. Raftelis, states⁸:

“Other costs that can be included in the minimum charge are capital costs associated with facilities that are available for providing basic service to the customer. When debt is used to finance major facilities, the utility has to pay debt service whether usage materializes or not. By recovering debt service costs through the minimum charge, the utility will be passing this fixed cost proportionally to each customer on a basis other than the usage of the system.

Finally, an argument can be made for including other fixed operating and capital costs in the minimum charge. Certain fixed operating and capital costs have to be paid by the utility whether or not usage

⁵ American Water Works Association (2017). *Principles of Water Rates, Fees and Charges, Manual of Water Supply Practices (M1)* (Seventh Edition), American Water Works Association. Page 151.

⁶ *Id.* at page 152

⁷ *Id.* at page 152

⁸ Raftelis, G.A. (2005). *Water and Wastewater Finance and Pricing* (Third Edition). CRC Press. Page 220

1 *materializes, and the utility can logically recover these costs through the*
2 *minimum charge.”*

3 **Q. WHAT IS YOUR RECOMMENDATION REGARDING APPLICATION OF THE**
4 **REVENUE INCREASE TO FIXED AND VARIABLE PORTIONS OF RATES?**

5 A. ORS’s approach of applying the entire increase to volumetric rates is unreasonable and will
6 unduly burden customers with higher usage. A more equitable approach would be to retain
7 the rate design proposed by KIU, which fairly distributes the increase between both the
8 fixed and variable elements of the rates.

9 **Q. DOES THIS COMPETE YOUR REBUTTAL TESTIMONY?**

10 A. Yes.